

REMARKS

The present application has been reviewed in light of the Office Action dated October 30, 2007. Claims 1-17 are presented for examination, of which Claims 1 and 12 are in independent form. Claim 12 has been amended. No new matter has been added by the amendment to claim 12. Favorable reconsideration is respectfully requested.

Claims 1-17 stand rejected under 35 U.S.C. § 102(e) as anticipated by U.S. Patent Application Publication No. 2004/0004486 (Poulbot et al.). As discussed below, Applicants submit that independent Claims 1 and 12, together with the claims dependent therefrom, are patentably distinct from Poulbot et al. for at least the following reasons.

Claim 1 is directed to a tire provided with a capacitive sensor which comprises at least a pair of substantially parallel electrodes. The capacitive sensor is located on a sidewall of the tire, wherein the electrodes lie substantially in a plane perpendicular to the rotation axis of the tire and are substantially orientated in an ortho-radial direction.

A notable feature of Claim 1 is that the capacitive sensor is located on a sidewall of the tire. As indicated in the present application, the deformation sensor can be arranged at any point on the sidewall, either on the inside sidewall or on the outside sidewall of the tire. Application as published, par. [0061] and Figs. 5 and 6. Another notable feature of Claim 1 is that the electrodes of the sensor lie substantially in a plane perpendicular to the axis of the tire and are substantially orientated along an ortho-radial direction. Application as published, par. [0083] and Figs. 5 and 6. The arrangement of the sensor and the position of the electrodes allow the sensor to provide a signal which is directly related to the deflection of the tire. Application as published, par. [0017]-[0018].

As understood by Applicants, Poulbot et al. relates to a device for evaluating deformations in the elements of a chassis system of a motor vehicle. Poulbot et al. par. [0002]. The device may be employed in a pneumatic tire and comprises an electric dipole, the dielectric of which is formed by an elastomeric body. Poulbot et al., par. [0005]. In addition, the device comprises an electronic analyzing circuit sensitive to a variation of a capacitive characteristic of the dipole caused by the deformation of the body. Poulbot et al., par. [0005]. The device is situated in the thickness of the tread and preferably in the tread element. Poulbot et al., par. [0009] and Fig. 1, 1a-c, 2 and 2a-c. The device may also be situated in a sidewall of the pneumatic tire and the dielectric preferably consists of the elastomeric material which constitutes the sidewall at least in the zone in which it is situated. Poulbot et al., par. [0011] and Figs. 4, 4a, 5 and 5a. The electrodes in the sidewall are substantially parallel and oriented substantially radially. Poulbot et al., par. [0011] and Figs. 4, 4a, 5 and 5a.

The Examiner alleges that Poulbot et al. teach a capacitive sensor [0045] located on a sidewall of a tire [0045], wherein the electrodes lie substantially in a plane perpendicular [0045] to the rotation axis of the tire and are substantially orientated in an ortho-radial direction [0044]. Applicants respectfully disagree. Applicants respectfully point out that paragraphs [0044] and [0045] of Poulbot et al. disclose a device located in the tread of the tire (Poulbot et al., Fig. 1), and not on the sidewall of the tire as presently claimed.

Applicants note however that Poulbot et al. disclose a device located in the sidewall of a tire. The electrodes are positioned in the sidewall of the tire such that the elastomeric material that constitutes the sidewall provides the dielectric of the device. Poulbot et al., par. [0011] and [0059] and Figs. 4, 4a, 5 and 5a. Poulbot et al., par. [0011], [0059] and [0063] and Fig. 4. The material which constitutes the sidewall is, for example, a sufficiently

insulating elastomer. Poulbot et al., par. [0059]. In addition, Poulbot et al. teach that the electrodes are parallel to each other and extend radially.

“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” MPEP § 2131 (quoting *Verdegaal Bros v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987) (emphasis added)). Applicants submit that Poulbot et al. do not teach or suggest a capacitive sensor located on a sidewall of the tire, in which the electrodes of the sensor lie substantially in a plane perpendicular to the axis of the tire and are substantially orientated along an ortho-radial direction. Rather, Poulbot et al. teach a sensor situated in the sidewall of a tire such that the elastomeric material which constitutes the sidewall provides the dielectric of the device. There is no teaching or suggestion in Poulbot et al. of a sensor located on a sidewall of a tire as required by Claim 1 of the instant application. In addition, Poulbot et al. teach that the electrodes of the sensor are substantially parallel to each other and are oriented substantially radially. There is no teaching or suggestion in Poulbot et al. that the electrodes of the sensor lie substantially in a plane perpendicular to the axis of the tire and are substantially oriented along an ortho-radial direction as required by Claim 1 of the instant application. Accordingly, Applicants believe that Claim 1 is patentable over Poulbot et al. and therefore withdrawal of the rejection under 35 U.S.C. § 102(e) is respectfully requested.

Claim 12, as amended, is directed to a deformation sensor comprising at least a pair of substantially parallel electrodes embedded in an elastomeric body forming a dielectric wherein the sensor is adapted to be placed on a surface of a tire and is configured to facilitate displacement of one of the electrodes relative to the other and comprises a flexible conductive envelope connected to a fixed potential so as to limit electromagnetic interference. A notable

feature of Claim 12 is that the sensor is adapted to be placed on a surface of a tire as shown in Figs. 5 and 6 of the present application. Another notable feature of Claim 12 is that the sensor comprises a flexible conductive envelope. An exemplary embodiment of a flexible conductive envelope 36 is shown in Fig. 4 of the instant specification.

Poulbot et al. do not teach or suggest a sensor which is adapted to be placed on a surface of a tire and which comprises a flexible conductive envelope as described in the instant application and required by Claim 12. Accordingly, Applicants believe that Claim 12 is patentable over Poulbot et al. and therefore withdrawal of the rejection under 35 U.S.C. § 102(e) is respectfully requested.

The other rejected claims in this application depend from Claims 1 and 12 and therefore are submitted to be patentable for at least the reasons discussed above. Because each dependent claim also is deemed to define an additional aspect of the invention, individual reconsideration of the patentability of each claim on its own merits is respectfully requested.

In view of the foregoing remarks, Applicants respectfully request favorable reconsideration and early passage to issue of the present application.

Applicants' undersigned attorney may be reached in our New York Office by telephone at (212) 218-2100. All correspondence should continue to be directed to our address listed below.

Respectfully submitted,

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